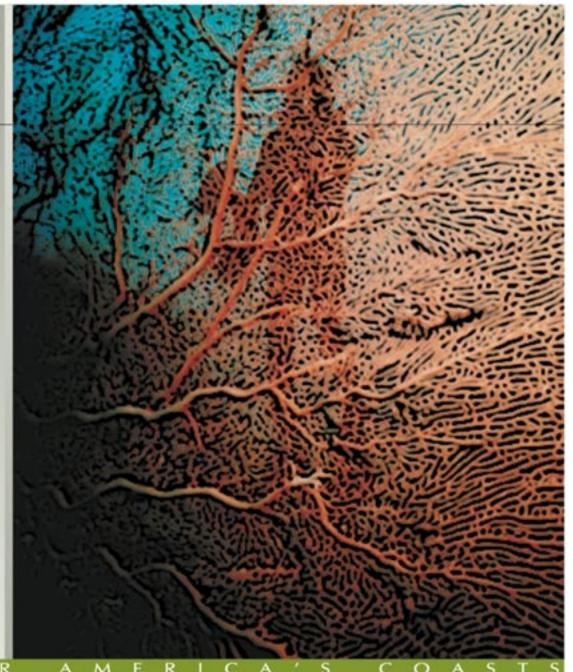
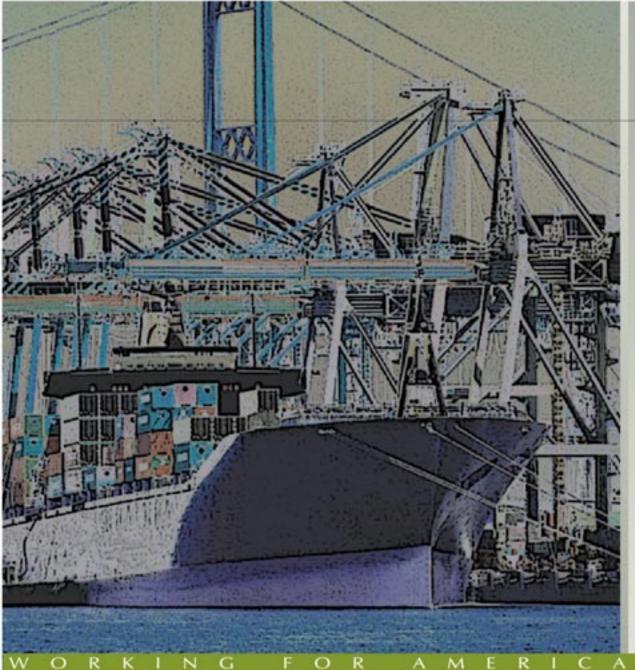


### NOS balances environmental protection





WORKING FOR AMERICA'S COASTS



with

## economic prosperity





#### **NOS Goals**

Promote Safe Navigation

• Support Coastal Communities

SCIENTE

Sustain Coastal Habitats

Mitigate Coastal Hazards

Accurate and timely navigation services are critical to safety, economic productivity, and environmental protection.



#### the challenge

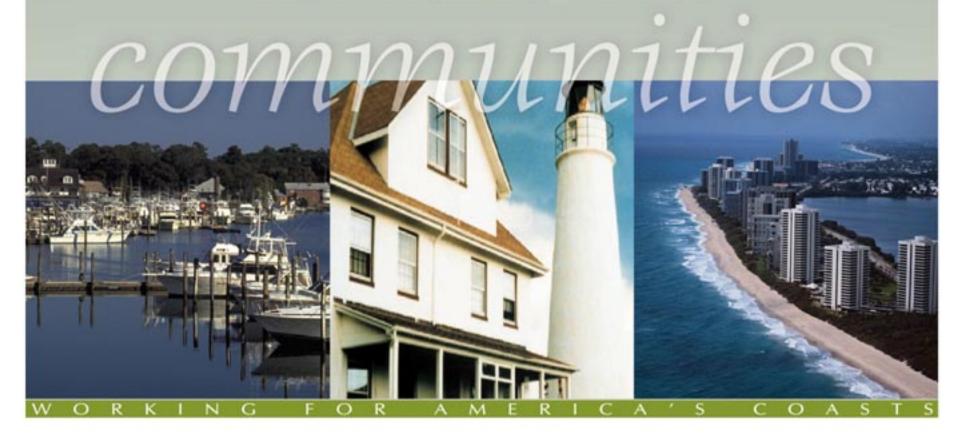
- Waterborne commerce contributes over \$742 billion and 13 million jobs to the economy annually.
- The total volume of marine trade will double in 20 years.
- Most oil spills occur within 3 miles of America's shoreline.
- 3,500 ships, many carrying hazardous materials, are involved in accidents on U.S. waterways each year.

#### the response NOS PROMOTES SAFE NAVIGATION

- We deliver nautical charts and real-time tide and current information.
- We maintain the geographic reference system needed for positioning and mapping.
- We provide scientific information to reduce risks from marine operations.

Americans expect a quality of life

that balances economic development with environmental protection.



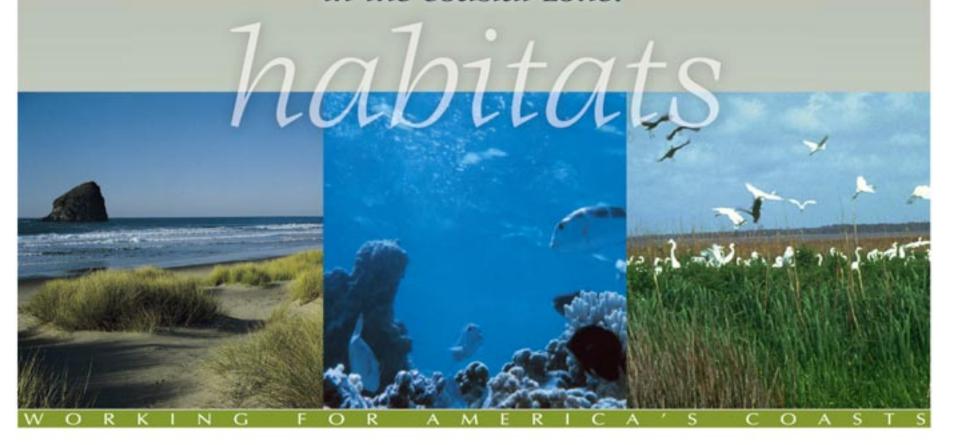
#### the challenge

- 40 percent of the nation's economic activity, including new commercial and residential development, occurs in the coastal zone.
- More than half of the U.S. population lives in coastal counties — only 17 percent of the land area.
- Coastal counties are growing at twice the rate of inland counties.
- The coastal environment is highly valued for the services it provides, but is vulnerable to degradation.

#### the response NOS SUPPORTS COASTAL COMMUNITIES

- We provide information and training to support decision-makers at the state and local level.
- We improve understanding of dynamic coastal processes and the cumulative effects of economic development.
- We apply an integrated approach to solving complex, interrelated problems.

Healthy coastal habitats are essential to economic and environmental prosperity in the coastal zone.



#### the challenge

- Coastal habitats are essential to more than 75
  percent of the commercial and 80 percent of the
  recreational catch of fish and shellfish.
- Declines in sea grass communities have been dramatic, e.g., the Chesapeake Bay once had over 600,000 acres of sea grass, but now only has about 68,000 acres left.
- Coastal habitats sustain biodiversity, buffer the effects of storms, and support public recreation.

#### the response NOS SUSTAINS COASTAL HABITATS

- We provide coastal managers with tools and training needed to understand and conserve habitat.
- We restore coastal resources damaged by natural and human-caused events.
- We work with states and other partners to manage a national network of marine and estuarine protected areas.

Communities must reduce their vulnerability to hazards and immediately respond when disaster strikes.



#### the challenge

- In 60 years, erosion will claim one in four houses within 500 feet of the shoreline; 26 of 35 coastal states are experiencing net loss of their shores.
- Coastal storms annually cause billions of dollars of damage. Losses from Hurricane Andrew in south Florida approached \$30 billion.
- Oil and chemical spills destroy wildlife, pollute estuaries and beaches, damage habitat, and jeopardize economic productivity.

#### the response NOS MITIGATES COASTAL HAZARDS

- We provide communities information, technology, and training to assess risk and reduce vulnerability.
- We develop tools and techniques to predict, evaluate, and respond to disasters.
- We react quickly to coastal emergencies with targeted assistance and information for decisionmaking.

#### **NOS Principles**

- · service avigation
- Partnerships munities
- · science abitats
- · Action azards

#### NOS: dedicated to service

PHYSICAL OCEANOGRAPHIC REAL-TIME SYSTEM PORTS...

- We provide mariners with accurate water level, current, and marine weather data;
- We enhance safety and environmental protection while improving movement of commercial goods; and
- We designed PORTS with local authorities and mariners to meet their specific needs.

## NOS: using partnerships for problem-solving COASTAL ZONE MANAGEMENT...

- We support a unique state-federal partnership to solve coastal management challenges;
- We provide financial support, mediation, technical information, and targeted assistance to coastal states; and
- We jointly manage a system of estuarine reserves for long-term research and education to improve management of coastal resources.

## NOS: harnessing science for understanding HABs and HYPOXIA...

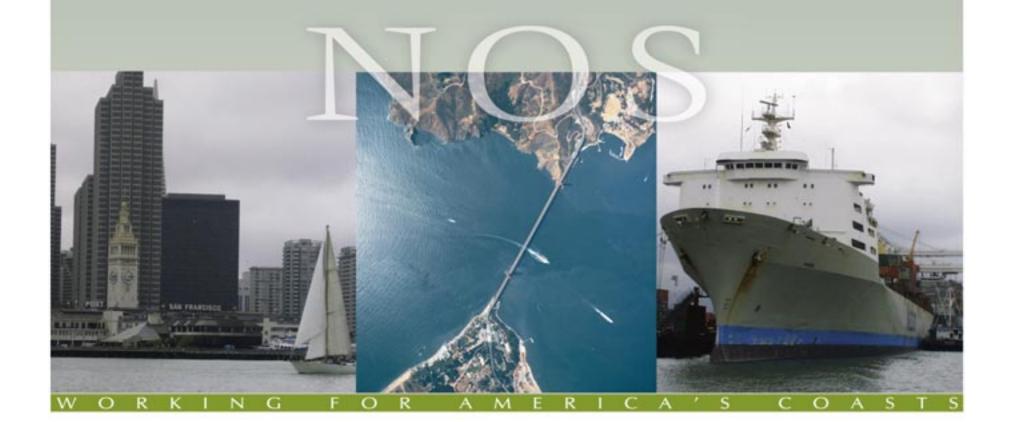
- We sponsor research on Pfiesteria and other algae that can harm humans and marine fisheries, and predicts outbreaks of red tides;
- We conduct assessments of oxygen-depleted coastal waters; and
- We develop nowcast/forecast oceanographic models that can predict landfall of harmful algal blooms.

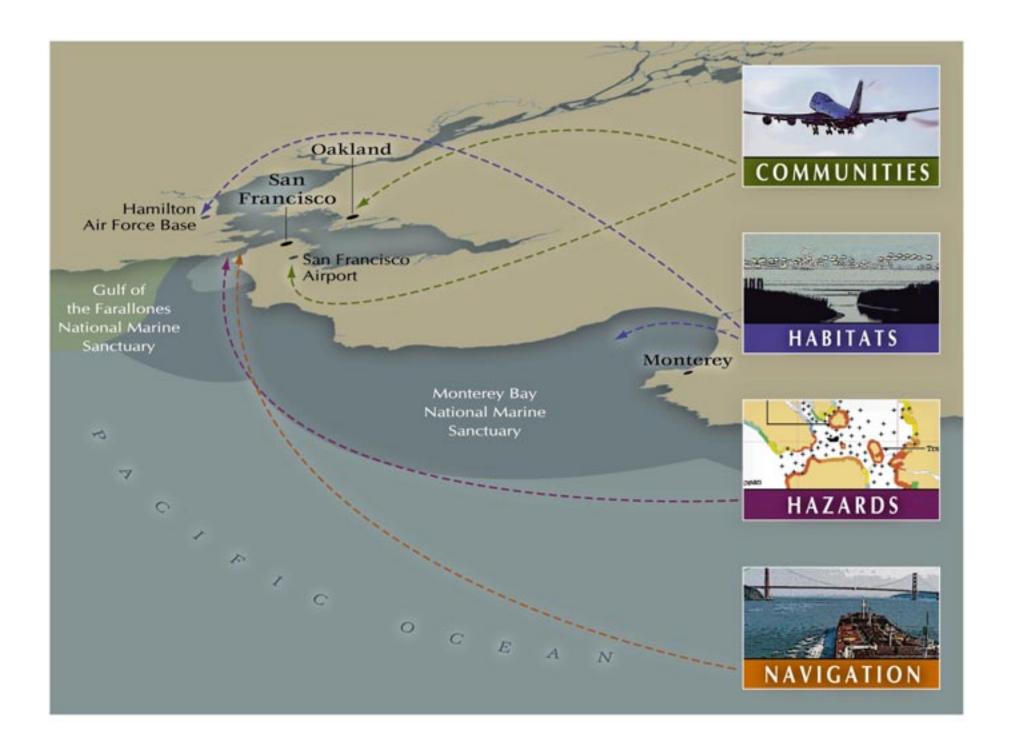
#### NOS: committed to action HAZARDOUS MATERIALS RESPONSE...

- We respond to more than 100 hazardous material spills and other emergencies each year;
- We help local communities improve their response capabilities; and
- We create products for hazardous material spill response at local, national, and international levels.

#### Meeting local

# and regional needs...





The nation behaves well if it treats

the natural resources as assets

which it must turn over to the next generation

increased, and not impaired, in value.

- THEODORE ROOSEVELT

## National Ocean Service

